

Introduction (Updated January 10, 2011)

Antiretroviral therapy (ART) for the treatment of human immunodeficiency virus (HIV) infection has improved steadily since the advent of potent combination therapy in 1996. New drugs have been approved that offer new mechanisms of action, improvements in potency and activity even against multidrug-resistant viruses, dosing convenience, and tolerability.

The Department of Health and Human Services (DHHS) Panel on Antiretroviral Guidelines for Adults and Adolescents (the Panel) is a working group of the Office of AIDS Research Advisory Council (OARAC). The primary goal of the Panel is to provide recommendations for HIV care practitioners based on current knowledge of antiretroviral (ARV) drugs used to treat adults and adolescents with HIV infection in the United States. The Panel reviews new evidence and updates recommendations when needed. The primary areas of attention have included baseline assessment, treatment goals, indications for initiation of ART, choice of the initial regimen in ART-naïve patients, drugs or combinations to be avoided, management of adverse effects and drug interactions, management of treatment failure, and special ART-related considerations in specific patient populations.

These guidelines generally represent the state of knowledge regarding the use of ARV agents. However, because the science evolves rapidly, the availability of new agents and new clinical data may change therapeutic options and preferences. Information included in these guidelines may not be consistent with approved labeling for the particular products or indications in question, and the terms “safe” and “effective” may not be synonymous with the Food and Drug Administration (FDA)-defined legal standards for product approval. The guidelines are updated frequently by the Panel (current and archived versions of the guidelines are available on the *AIDSinfo* Web site at <http://www.aidsinfo.nih.gov>). However, the guidelines cannot always keep pace with the rapid evolution of new data in this field, and they cannot provide guidance for all patients. Clinicians should exercise clinical judgment in management decisions tailored to unique patient circumstances.

The Panel recognizes the importance of clinical research in generating evidence to address unanswered questions related to the optimal safety and efficacy of ART. The Panel encourages both the development of protocols and patient participation in well-designed, Institutional Review Board (IRB)-approved clinical trials.

GUIDELINES DEVELOPMENT PROCESS

Table 1 provides an outline of the composition of the Panel and guidelines process.

Table 1. Outline of the Guidelines Development Process (Updated November 3, 2008)

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Topic	Comment
Goal of the guidelines	Provide guidance to HIV care practitioners on the optimal use of ARV agents for the treatment of HIV infection in adults and adolescents in the United States.
Panel members	The Panel is composed of more than 30 voting members who have expertise in HIV care and research. The U.S. government representatives include at least 1 representative from each of the following DHHS agencies: Centers for Disease Control and Prevention (CDC), FDA, Health Resource Services Administration (HRSA), and National Institutes of Health (NIH). These members are appointed by their respective agencies. Approximately 2/3 of the Panel members are nongovernmental scientific members. There are 4–5 community members with knowledge in HIV treatment and care. Members who do not represent U.S. government agencies are selected after an open announcement to call for nominations. Each member serves on the Panel for a 4-year term, with an option to be reappointed for an additional term. A list of the current members can be found on Page vii of this document.

Table 1. Outline of the Guidelines Development Process

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Financial disclosure	All members of the Panel submit a written financial disclosure annually reporting any association with manufacturers of ARV drugs or diagnostics used for management of HIV infections. A list of the latest disclosures is available on the <i>AIDSinfo</i> Web site (http://aidsinfo.nih.gov/contentfiles/AA_Roster.pdf).
Users of the guidelines	HIV treatment providers
Developer	Panel on Antiretroviral Guidelines for Adults and Adolescents—a working group of the OARAC
Funding source	Office of AIDS Research, NIH
Evidence collection	The recommendations in the guidelines are generally based on studies published in peer-reviewed journals. On some occasions, particularly when new information may affect patient safety, unpublished data presented at major conferences or prepared by the FDA and/or manufacturers as warnings to the public may be used as evidence to revise the guidelines.
Recommendation grading	As described in Table 2
Method of synthesizing data	Each section of the guidelines is assigned to a working group of Panel members with expertise in the area of interest. The members of the working group synthesize the available data and propose recommendations to the Panel. All proposals are discussed at monthly teleconferences and then voted on by the Panel before being endorsed as official recommendations.
Other guidelines	These guidelines focus on treatment for HIV-infected adults and adolescents. Separate guidelines outline the use of ART for other populations, such as pregnant women and children. These guidelines are also available on the <i>AIDSinfo</i> Web site (http://www.aidsinfo.nih.gov). There is a brief discussion of the management of women of reproductive age and pregnant women in this document. For a more detailed and up-to-date discussion on this group of women and other special populations, the Panel defers to the designated expertise offered by panels that have developed those guidelines.
Update plan	The Panel meets monthly by teleconference to review data that may warrant modification of the guidelines. Updates may be prompted by new drug approvals (or new indications, dosing formulations, or frequency), new significant safety or efficacy data, or other information that may have a significant impact on the clinical care of patients. For cases in which significant new data become available that may affect patient safety, a warning announcement with the Panel's recommendations may be made on the <i>AIDSinfo</i> Web site until appropriate changes can be made in the guidelines document. Updated guidelines are available on the <i>AIDSinfo</i> Web site (http://www.aidsinfo.nih.gov).
Public comments	After release of an update on the <i>AIDSinfo</i> Web site, the public is given a 2-week period to submit comments to the Panel. These comments are reviewed, and a determination is made as to whether revisions are indicated. The public may also submit comments to the Panel at any time at contactus@aidinfo.nih.gov .

Basis for Recommendations

Recommendations in these guidelines are based upon scientific evidence and expert opinion. Each recommended statement is rated with a letter of **A**, **B**, or **C** that represents the strength of the recommendation and with a numeral **I**, **II**, or **III** that represents the quality of the evidence. (See [Table 2](#).)

Table 2. Rating Scheme for Recommendations (Updated November 3, 2008)

Strength of Recommendation	Quality of Evidence for Recommendation
A: Strong recommendation for the statement B: Moderate recommendation for the statement C: Optional recommendation for the statement	I: One or more randomized trials with clinical outcomes and/or validated laboratory endpoints II: One or more well-designed, nonrandomized trials or observational cohort studies with long-term clinical outcomes III: Expert opinion

HIV Expertise in Clinical Care

Multiple studies have demonstrated that better outcomes are achieved in HIV-infected outpatients cared for by a clinician with HIV expertise [1-6], which reflects the complexity of HIV infection and its treatment. Thus, appropriate training and experience, as well as ongoing continuing medical education (CME), are important components for optimal care. Primary care providers without HIV experience, such as those who provide service in rural or underserved areas, should identify experts in the region who will provide consultation when needed.

References

1. Kitahata MM, Koepsell TD, Deyo RA, et al. Physicians' experience with the acquired immunodeficiency syndrome as a factor in patients' survival. *N Engl J Med.* 1996;334(11):701-706.
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4. Laine C, Markson LE, McKee LJ, et al. The relationship of clinic experience with advanced HIV and survival of women with AIDS. *AIDS.* 1998;12(4):417-424.
5. Kitahata MM, Van Rompaey SE, Dillingham PW, et al. Primary care delivery is associated with greater physician experience and improved survival among persons with AIDS. *J Gen Intern Med.* 2003;18(2):95-103.
6. Delgado J, Heath KV, Yip B, et al. Highly active antiretroviral therapy: physician experience and enhanced adherence to prescription refill. *Antivir Ther.* 2003;8(5):471-478.